

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A mobile communication terminal comprising:

~~identification information receiving~~ means for receiving identification information from at least one mini-communicator which transmits predetermined identification information of its own;

~~cellular communication~~ means for ~~implementing communication~~ communicating with a server or another terminal via a cellular communication network; and

~~switching control~~ means for receiving a switching signal for switching among a plurality of modes comprising an identification information receive mode ~~[[of]] activating only the identification information receiving means out of the identification information receiving means and the cellular communication means~~ for receiving identification information, and a cellular communication mode ~~[[of]] activating only the cellular communication means~~ for communicating, and for performing a mode switching control based on the received switching signal.

Claims 2 (Currently Amended): The mobile communication terminal according to Claim 1, further comprising:

~~measuring~~ means for measuring a reception intensity of a radio wave received from the mini-communicator; and

~~information generating~~ means for generating transmission information to the server, which contains the identification information of the mini-communicator received from the mini-communicator, identification information of the mobile communication terminal, and the reception intensity of the radio wave from the mini-communicator, and for making the

~~cellular communication~~ means for communicating transmit the generated transmission information to the server.

Claim 3 (Currently Amended): The mobile communication terminal according to Claim 2, further comprising:

~~traffic-acquiring~~ means for acquiring traffic information in the cellular communication network; and

~~information-storing~~ means for receiving and temporarily storing the transmission information from the ~~information-generating~~ means for generating, and for performing such an operation control as to output the transmission information to the ~~cellular communication~~ means for communicating or store the transmission information, based on the traffic information in the cellular communication network acquired by the ~~traffic-acquiring~~ means for acquiring.

Claim 4 (Currently Amended): The mobile communication terminal according to Claim 2, further comprising:

a ~~memory~~ means for receiving and temporarily storing the transmission information from the ~~information-generating~~ means for generating; and

~~selecting-outputting~~ means for selecting transmission information to be outputted, from the transmission information stored in the ~~memory~~ means for receiving and temporarily storing, based on condition information containing at least a thinning condition for transmission information or a selection condition for transmission information to be outputted or to avoid output, and for outputting the transmission information to be outputted, to the ~~cellular communication~~ means for communicating.

Claim 5 (Currently Amended): The mobile communication terminal according to Claim 2, wherein the ~~information-generating~~ means for generating comprises:

~~identification-number-memorizing~~ means for memorizing an identification number of a mini-communicator which the mobile communication terminal was able to receive at a past point of time;

~~determining~~ means for comparing identification information of a mini-communicator which the mobile communication terminal is able to receive at the present time, with the identification number of the mini-communicator memorized, thereby determining whether there is a difference; and

~~transmission-control~~ means for making the ~~cellular-communication~~ means for communicating transmit the transmission information to the server, in a predetermined case where it is determined at least once that there is a difference.

Claim 6 (Currently Amended): The mobile communication terminal according to Claim 1, further comprising:

~~measuring~~ means for measuring a reception intensity of a radio wave received from the mini-communicator;

~~receiving~~ means for receiving from another mobile communication terminal, other terminal information containing the identification information of the mini-communicator, the reception intensity of the radio wave from the mini-communicator, and location information of the other mobile communication terminal; and

~~location-estimation-control~~ means for estimating the location of the mini-communicator corresponding to the transmission information, based on the reception intensity of the radio wave from the mini-communicator, measured by the ~~measuring~~ means

for measuring of the mobile communication terminal, and on the other terminal information, and for notifying the server of the estimated location information.

Claim 7 (Currently Amended): The mobile communication terminal according to Claim 1, further comprising ~~relaying~~ means for amplifying a transmitted or received radio wave of the cellular communication network communicable with the mobile communication terminal, to relay the radio wave.

Claim 8 (Currently Amended): The mobile communication terminal according to Claim 1, wherein the ~~cellular communication~~ means for communicating is configured to:

set a transmission/reception channel for transmission/reception of the transmission information, separately from a user channel for transmission/reception of user data and a control channel for transmission/reception of a control signal, in communication via the cellular communication network, and transmit the transmission information through the use of the transmission/reception channel.

Claim 9 (Currently Amended): A server capable of communication with at least one mobile communication terminal having ~~identification information receiving~~ means for receiving identification information from at least one mini-communicator, and ~~cellular communication~~ means for ~~implementing communication~~ communicating with a server or another terminal via a cellular communication network, the server comprising:

~~switching signal transmitting~~ means for transmitting to the mobile communication terminal a switching signal according to a predetermined mode switching request, in order to implement switching among a plurality of modes comprising an identification information receive mode ~~[[of]]~~ activating only the means for receiving identification information

~~receiving means out of the identification information receiving means and the cellular communication means~~, and a cellular communication mode ~~[[of]]~~ activating only the ~~cellular communication means~~ for communicating, at the mobile communication terminal.

Claim 10 (Currently Amended): The server according to Claim 9, further comprising:  
a mini-communicator location database ~~storing~~ configured to store location information of at least one mini-communicator;

a terminal location database ~~storing~~ configured to store location information of at least one mobile communication terminal; and

~~location-estimating~~ means for estimating a location of a mini-communicator corresponding to transmission information, based on transmission information from said mobile communication terminal containing identification information of a mini-communicator which a mobile communication terminal received from said mini-communicator, identification information of said mobile communication terminal, and a reception intensity of a radio wave from said mini-communicator, the pre-stored location information of the mini-communicator, and the pre-stored location information of the mobile communication terminal, and for updating the mini-communicator location database by the estimated location information.

Claim 11 (Currently Amended): The server according to Claim 9, further comprising:  
a mini-communicator location database ~~storing~~ configured to store location information of at least one mini-communicator; and

~~location-management~~ means for receiving location information of a mini-communicator estimated and notified of by a mobile communication terminal, and for updating the mini-communicator location database by the received location information.

Claim 12 (Currently Amended): A communication system comprising at least one mini-communicator configured to transmit predetermined identification information of its own; a server capable of being connected to a cellular communication network; and at least one mobile communication terminal functioning as an aggregation point for aggregating information from the mini-communicator;

wherein the mobile communication terminal comprises:

~~identification information receiving~~ means for receiving the identification information from the mini-communicator;

~~cellular communication~~ means for ~~implementing communication~~ communicating with the server or another terminal via the cellular communication network; and

~~switching control~~ means for receiving a switching signal for switching among a plurality of modes comprising an identification information receive mode ~~[[of]]~~ activating only the ~~identification information receiving~~ means ~~out of the~~ for receiving identification information ~~receiving means and the cellular communication means~~, and a cellular communication mode ~~[[of]]~~ activating only the ~~cellular communication~~ means for communicating, and for performing a mode switching control based on the received switching signal;

wherein the server comprises:

~~switching signal transmitting~~ means for transmitting a switching signal according to a predetermined mode switching request to the mobile communication terminal; and

wherein the ~~switching control~~ means for receiving a switching signal of the mobile communication terminal performs the mode switching control based on the switching signal received from the server.

Claim 13 (Currently Amended): The communication system according to Claim 12, said communication system further comprising a cellular network management apparatus having including:

~~network state monitoring~~ means for monitoring a state of the cellular communication network;

~~class information memorizing~~ means for memorizing class information defined for each mobile communication terminal or for each user of the mobile communication terminal;

~~accepting~~ means for accepting a user request about the mode switching control; and

~~switching signal generating~~ means for generating a mode switching signal based on at least one of the class information acquired from the ~~class information memorizing~~ means for memorizing, the state information of the cellular communication network acquired in monitoring by the ~~network state monitoring~~ means for monitoring, and the user request accepted by the ~~accepting~~ means for accepting, and for transmitting the switching signal to the mobile communication terminal;

wherein the ~~switching control~~ means for receiving a switching signal of the mobile communication terminal performs the mode switching control based on the switching signal received from the cellular network management apparatus.

Claim 14 (Currently Amended): The communication system according to Claim 12, wherein the server further comprises:

~~reference time generating outputting~~ means for generating a reference time as a reference of time stamp and transmitting the reference time to the mobile communication terminal, and

wherein the mobile communication terminal further comprises:

~~time measuring~~ means for measuring time; and

~~calculating~~ means for calculating a difference between the reference time transmitted from the server, and a measured time, and for outputting the value of calculated difference as a time stamp.

Claim 15 (Currently Amended): The communication system according to Claim 12, wherein at least one of the mobile communication terminal and the server further comprises ~~authentication~~ means for authenticating whether a mini-communicator is a qualified one.

Claim 16 (Currently Amended): A communication control method in a communication system comprising at least one mini-communicator configured to transmit predetermined identification information of its own, a server capable of being connected to a cellular communication network, and at least one mobile communication terminal functioning as an aggregation point for aggregating information from the mini-communicator, the communication control method comprising:

~~a switching signal receiving step of receiving a switching signal for switching among a plurality of modes comprising an identification information receive mode [[of]] activating only identification information receiving means out of the identification information receiving means for receiving the identification information from the mini-communicator, and cellular communication means for implementing communication with the server or another terminal via the cellular communication network, and a cellular communication mode [[of]] activating only a the cellular communication means~~ for communicating, at the mobile communication terminal; and

~~a switching control step of performing a mode switching control based on the received switching signal.~~



Claim 17 (Currently Amended): The communication control method according to Claim 16, further comprising:

~~a measuring step of~~ measuring a reception intensity of a radio wave received from the mini-communicator, at the mobile communication terminal;

~~an information generating step of~~ generating transmission information to the server, which contains the identification information of the mini-communicator received from the mini-communicator, identification information of the mobile communication terminal, and the reception intensity of the radio wave from the mini-communicator, at the mobile communication terminal;

~~an information transmitting step of~~ transmitting the generated transmission information to the server, at the mobile communication terminal; and

~~a location estimating step of~~ estimating a location of a mini-communicator corresponding to the transmission information, based on the received transmission information, pre-stored location information of the mini-communicator, and pre-stored location information of the mobile communication terminal, at the server.

Claim 18 (Currently Amended): The communication control method according to Claim 17, wherein the ~~information generating step is configured to~~ generating includes:

~~compare~~ comparing an identification number of a mini-communicator which the mobile communication terminal was able to receive at a past point of time, with identification information of a mini-communicator which the mobile communication terminal is able to receive at the present time, to determine whether there is a difference; and

~~generate~~ producing the transmission information, in a predetermined case where it is determined at least once that there is a difference.

Claim 19 (Currently Amended): The communication control method according to Claim 16, further comprising:

~~a measuring step of~~ measuring a reception intensity of a radio wave received from the mini-communicator, at the mobile communication terminal;

~~a receiving step of~~ receiving from another mobile communication terminal, other terminal information containing identification information of a mini-communicator, a reception intensity of a radio wave from said mini-communicator, and location information of the other mobile communication terminal, at the mobile communication terminal; and

~~a location estimating step of~~ estimating a location of the mini-communicator corresponding to transmission information, based on the reception intensity of the radio wave from the mini-communicator, which was measured at the mobile communication terminal, and on the other terminal information, at the mobile communication terminal.

Claim 20 (Currently Amended): A communication control program to be executed by a computer in a mobile communication terminal comprising ~~identification information~~ ~~receiving~~ means for receiving identification information from at least one mini-communicator configured to transmit predetermined identification information of its own, and ~~cellular communication~~ means for ~~implementing communication~~ communicating with a server or another terminal via a cellular communication network, the communication control program comprising:

~~a switching signal receiving step of~~ receiving a switching signal for switching among a plurality of modes comprising an identification information receive mode ~~[[of]]~~ activating only the ~~identification information receiving means out of the~~ for receiving identification information ~~receiving means and the cellular communication means~~, and a cellular

communication mode ~~[[of]]~~ activating only the ~~cellular communication~~ means for communicating; and

~~a switching control step of~~ performing a mode switching control based on the received switching signal.